

JSC co-ops complete spring semester work tours

As the summer draws near, JSC co-ops are wrapping up their spring semester work tours as many prepare to head back to school for the summer. Students within the program typically alternate between studying at school and working at JSC. This semester saw co-ops working in eleven directorates and accomplishing a slew of projects fundamental to the center's mission. "The quality of the students in the co-op program is phenomenal," says Co-op Program Manager Robert Musgrove. The program continues to be a primary link between the Johnson Space Center and academic institutions nationwide, attracting students who hope to work here full-time after graduation. According to Musgrove, "this is a result of our reputation for giving co-ops an on-the-job learning experience that can't be beat."

"You get hands-on experience that complements your studies well," says Pooja Agrawal, a co-op in the Flight Dynamics Officer Office. "More importantly, you get to see the big picture – the space program come together as a whole." Agrawal, a junior at Purdue



NASA JSC Photo 2000E14673 by Bill Stafford

Texas A&M's Janna Althaus became one of the center's first co-ops to work a flight as a certified flight controller this semester.

Mechanical, Maintenance, Arm and Crew Systems Group, became one of the first co-ops in Center history to work a flight as a certified flight controller. She was certified as MECH II last summer and supported all three STS-101 launch attempts this past month.

"I felt as though I was given the responsibility of a full-time employee" says Althaus, a native of Austin, Texas. "After all the STS-101 training I felt like a real part of the MMACS team." Althaus, who at one time began to question her decision to become an engineer, says working at JSC has rekindled her interest. "Co-oping at NASA allowed me to find a place where I really love working and that I could see as enjoyable long term."

This semester has also seen co-ops become instructors. Mandy Rogers, a junior at Purdue University, spent this semester working in the Training Division as a station avionics instructor and is now certified to teach three different Part Task Trainer lessons

to crewmembers, flight controllers and fellow trainers. Rogers, a native of Bellefontaine, Ohio, has enjoyed how "people-oriented" her tour has been.

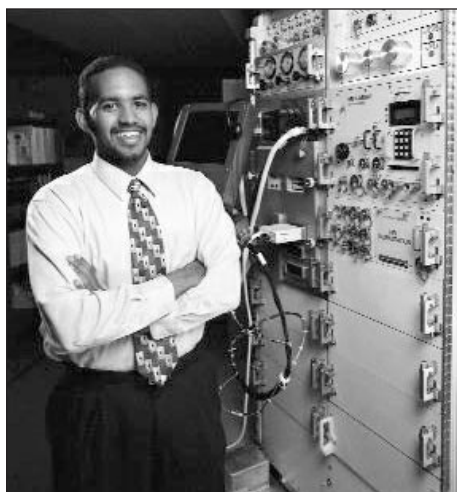


NASA JSC Photo 2000E14675 by Bill Stafford

Purdue University co-op Mandy Rogers became certified to teach three PTT courses this semester.

"I enjoy working closely with people on a daily basis, while still dealing with technical issues." Rogers believes the co-op program has given her the chance to contribute to the space program in two different ways. "I have contributed not only through the work that I've done for NASA, but I have served as a direct link to NASA for my friends and family back home, expanding their knowledge of the space program and increasing enthusiasm and support of space exploration."

Co-ops have accomplished design and fabrication projects as well this semester. Nahom Beyene, a senior in mechanical engineering at UT-Austin, was assigned to the Biomedical Hardware Development



University of Texas co-op Nahom Beyene designed and fabricated a close-out door this semester.

and Engineering Office where he designed and fabricated a close-out door for the Human Research Facility high-fidelity mockup in Bldg. 9. Beyene, a native of Dallas, Texas, says he has "enjoyed the experience of being respected as an individual working for a team with a common project." He was so impressed with the JSC co-op program that he spoke to Harris County Legislators during their visit to JSC about his work at NASA to show the value of NASA student programs.

Tim McGee, a senior at the University of Illinois, wrote the software for a pneumatic transporter – a revolutionary vehicle which has wheels made of sixteen inflatable bladders. The vehicle does not have a rotary motor but rather rolls by transferring air from bladder to bladder. "Co-oping at JSC has allowed me to explore various areas of engineering including analysis, design, and systems integration. This experience has proven invaluable by showing me the direction I want to take my career," says McGee, a native of Arlington Heights, Ill.

Co-ops have also had the opportunity to work on actual flight vehicles. Juliet Jurkovskis, a junior at Texas A&M, spent the semester as a software engineer working on the X-38 project and participated in simulations involving vehicles 201 and 131R, both of which will fly in the coming years. Jurkovskis, a native of a Round Rock, Texas,



NASA JSC Photo 2000E14674 by Bill Stafford

University of Illinois co-op Tim McGee stands in front of the vehicle for which he wrote the software.

comments that working at JSC has given her a better idea as to what subjects she does and does not want to pursue. "I've learned about engineering and technologies while working on an exciting project with people whom I admire."



NASA JSC Photo 2000E14676 by Bill Stafford

Texas A&M co-op Juliet Jurkovskis in front of the X-38 on which she worked as a software engineer.

"Co-ops contribute greatly to the mission of the center," explains Musgrove. "Not only do they perform professional-level work for their organizations, but they also heavily support the center's outreach efforts such as Inspection, SCIAD, High School Outreach and the KC-135 Student Flight Campaign." The number of co-ops in the program is increasing to meet the center's entry-level hiring needs. "As they have for many years, this current group of co-ops will be sought after upon graduation to fill many of the center's permanent positions." ■



NASA JSC Photo 2000E14677 by Bill Stafford

Purdue University co-ops Nicholas Saadah and Pooja Agrawal worked in the Flight Design and Dynamics Division this summer.

University and a resident of Dracut, Mass, spent this semester analyzing flight data from missions involving a rendezvous. After running more than eight hundred test cases, she generated a set of plots which will help flight controllers better determine whether or not a safe rendezvous can be accomplished from their current orientation. "Conducting this study helped me understand orbital mechanics better and decide what I wanted my focus to be."

Nicholas Saadah, a senior at Purdue University, worked in the same division debugging a computer code known as TSA which will eventually replace the Mission Operations Computer, a computer which has been used to deorbit every U.S. space vehicle since the Apollo Program. "It's very exciting to think that I am working on a code this monumental," says Saadah, a native of Oklahoma City. "I'm very honored and I can't wait to see the end result."

This semester also saw a historic achievement as Janna Althaus, a senior at Texas A&M University working in the

JSC kicks off 2000 Savings Bond Campaign

JSC's U.S. Savings Bond Campaign begins May 22 and continues through June 2, 2000. Employees will receive more information about savings bonds during the campaign. Buying savings bonds is one of those fortunate transactions where both the buyer and seller profit. Interest rates for Series EE savings bonds are based on market yields of actively traded Treasury notes and bills and are adjusted every six months, climbing as market rates increase. Each May 1 and November 1, the Treasury announces the rate which is 90 percent of the average yield on five-year Treasury securities for the preceding six months. Bonds earn these rates right from the start; the current rate as of May 1 is 5.73 percent.



Savings bonds provide numerous other advantages. Interest earned is not subject to state or local taxes, and federal tax liability can be deferred until the bonds are cashed. In addition, when bonds are redeemed for the purpose of financing higher education – you or your children's – interest earned under some circumstances is completely tax free. Bonds can be cashed any time after six months but bonds cashed before five years are subject to a three-month interest penalty.

More information about savings bonds can be found by clicking on the Savings Bond Campaign box on the Human Resources Office homepage at <http://hro.jsc.nasa.gov/>. If you have additional questions, contact your directorate campaign coordinator or Candy Hunt at x31836. ■